CLAIMS

What is claimed is:

1. A magnetic write head, comprising:

a first magnetic write pole having first and second ends;

a magnetic pedestal formed over said first magnetic pole at said first end;

a magnetic back gap layer formed over said first magnetic pole at said second end, said pedestal and said back gap having a distance therebetween;

a non magnetic write gap material formed over said pedestal, extending toward said back gap and having a termination between said pedestal and said back gap; and

a magnetic layer formed over said back gap, extending toward said pedestal and terminating at said termination of said write gap material.

2. A magnetic write head as in claim 1, wherein said write gap material layer extends less than half said distance between said pedestal and said write gap.

3. A magnetic write head as in claim 1 wherein said write gap material layer extends less than 20 percent said distance between said pedestal and said back gap.

4. A magnetic head as in claim 1, wherein said write gap material is Rh.

5. A magnetic head as in claim 1, wherein said magnetic layer is NiFe.

6 A magnetic head as in claim 1, further comprising a second magnetic pole extending from said back gap layer to said pedestal, said second pole being magnetically connected with said back gap and being separated from said pedestal by said write gap material.

7. A magnetic write head, comprising:

a first magnetic write pole having first and second ends;

a first magnetic pedestal formed over said first magnetic pole at said first end;

a first magnetic back gap layer formed over said first magnetic pole at said second end, said pedestal and said back gap having a distance therebetween;

a first material formed over said pedestal, said first material being electrically conductive and non-magnetic;

a second material formed over said back gap, said second material being electrically conductive and magnetic and being a different material than said first material;

a second pedestal formed over said first material layer over said first pedestal;

a second back layer formed over said second material layer over said back gap; and

a magnetic pole extending between and magnetically connecting said second pedestal and said second back gap layer.

8. A magnetic head as in claim 1, wherein said non-magnetic write gap material comprises less than 50% of an area of said head.

9. A magnetic head as in claim 1, wherein said non-magnetic write gap material comprises less than 20% of said head.

10. A method of constructing a magnetic write head, comprising:

providing a first magnetic pole;

forming a first magnetic pedestal over said first magnetic pole;

forming a magnetic back gap layer over said first magnetic pole, said first magnetic pedestal and said back gap layer being separated by a distance;

depositing a non-magnetic metal layer;

forming a mask over said first pedestal;

performing an material removal process to remove portions of said non magnetic metal layer not covered by said mask; and

depositing a magnetic layer.

11. A method as in claim 10 wherein said material removal process comprises ion milling.

12. A method as in claim 10 wherein said mask extends beyond said pedestal in said direction of said back gap and terminates less than half said distance between said pedestal and said back gap.

13. A method as in claim 10 wherein said mask extends beyond said pedestal in said direction of said back gap and terminates less than 20 percent of said distance between said pedestal and said back tap.

14. A method as in claim 10 wherein said non-magnetic material comprises Rh.

15. A method as in claim 10 wherein said magnetic material comprises NiFe.

16. A method as in claim 10 wherein said mask is a bilayer photoresist mask.

17. A method as in claim 10 further comprising forming a second magnetic pole over at least a portion of said non-magnetic layer and said magnetic layer.

18. A method as in claim 10 wherein said magnetic layer and said non-magnetic metal layer have substantially the same thickness.

19. A method as in claim 10 wherein said magnetic layer has a thickness substantially the same as said non-magnetic metal layer, within plus or minus 50 percent.

20. A method as in claim 10 further comprising:

forming a second pedestal over said first pedestal and separated from said first pedestal by said non-magnetic metal layer;

forming a back magnetic layer over said back gap layer, said back magnetic layer being magnetically connected to said back gap layer through said magnetic layer, and

forming a second pole, magnetically connected to said second magnetic pedestal and said back magnetic pedestal.

21. A magnetic head as in claim 10, wherein said mask covers an area less than 50% of said magnetic head.

22. A magnetic head as in claim 10, wherein said mask covers an area less than 20% of said magnetic head.